

18 metode desain

Christopher James Lidy, 2006 *A Study of Landscape Architecture Design Methods*, Thesis Master of Landscape Architecture Virginia Polytechnic Institute and State University, Alexandria, Virginia

Latar Belakang

ketidakpahaman tentang metode atau proses desain sering membingungkan dan membuat frustrasi mahasiswa

logika komputerisasi dan teknologi informasi dapat mengarah pada keyakinan yang salah bahwa semua problem dapat diselesaikan bila seseorang telah mendapatkan informasi yang banyak dan dari asumsi ini lantas percaya bahwa jawaban persoalan akan muncul dengan sendirinya sementara kita tahu proses desain adalah proses yang heuristik

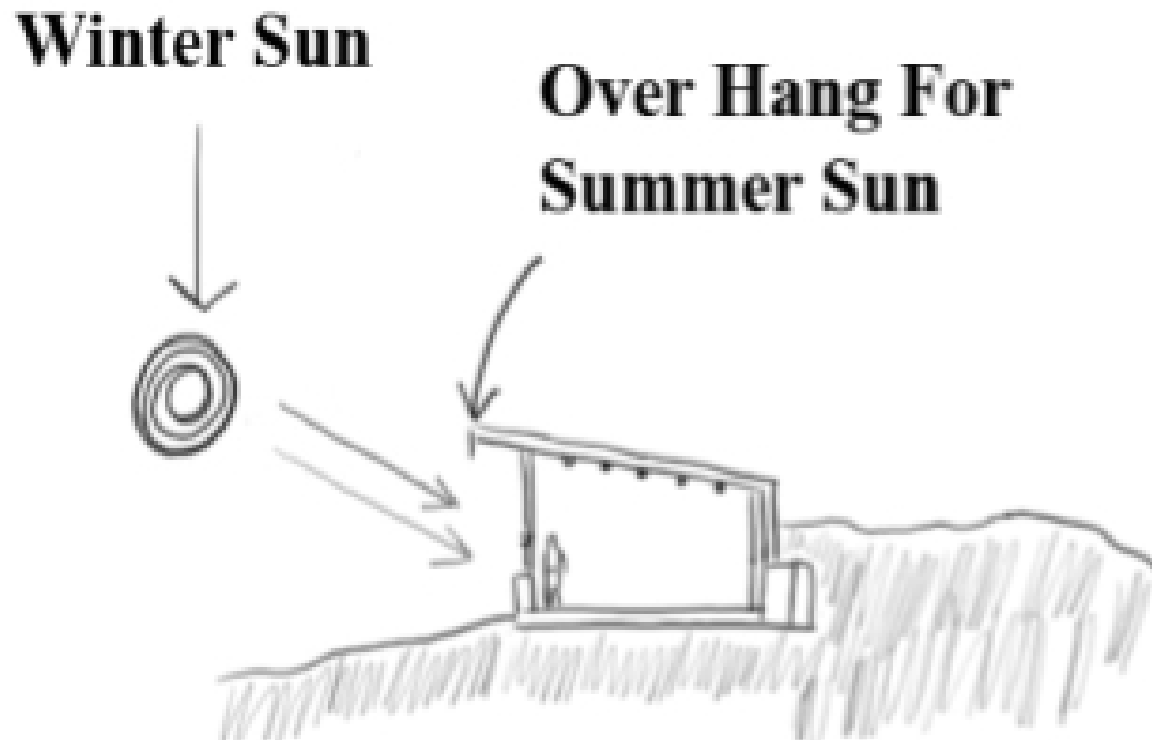
1. System Modeling

System modeling solves a design by looking at a system, understanding its function and stimuli, placing the system in the design context and substituting design elements for function and stimuli. In the following example, the movement of the crowd is similar to the movement of the tide. For example, when designing a plaza, the crowd could be thought of as water moving with a tide and managed by the same means as one controls water movement.



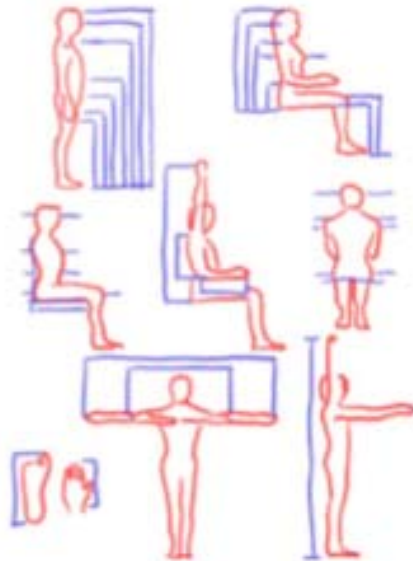
2. Environmental Relations

Environmental relations incorporates the proper relation between man and the environment and includes considerations of how materials interact with the environment. The following diagram shows the intent to use environmental heating to control the structure's internal temperature. In the landscape architecture design context, landscape architects incorporate native plants into their designs to repair or minimize the environmental impact of a project.



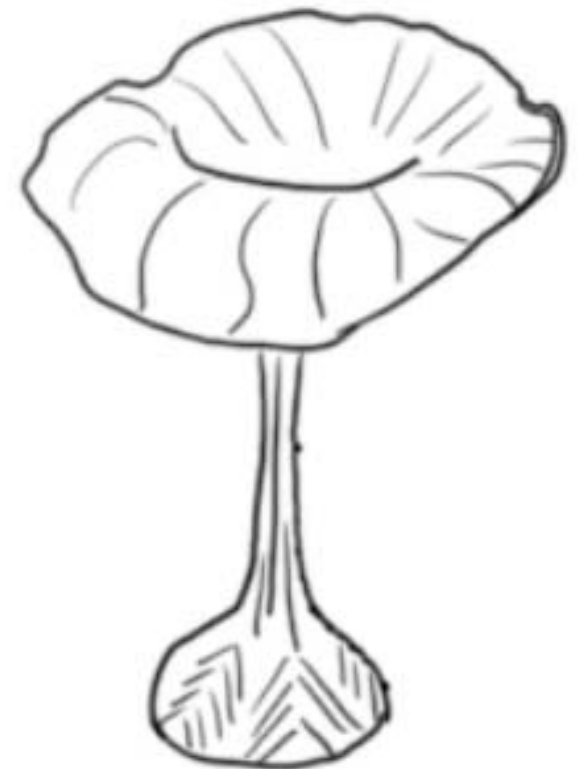
3. Anthropometric Analogies

Anthropometric analogies focus on the human body and its relationship to the design goal. The following diagrams center on the baseline relationship of the human body to the design. The program elements are solved, and these solutions are then used to develop the design to completion. When designing a plaza, it is very important to incorporate how humans relate to the site. For example, is the bench too big and uncomfortable? Can one see over the wall if standing next to it, 10 feet away or 50 feet away?



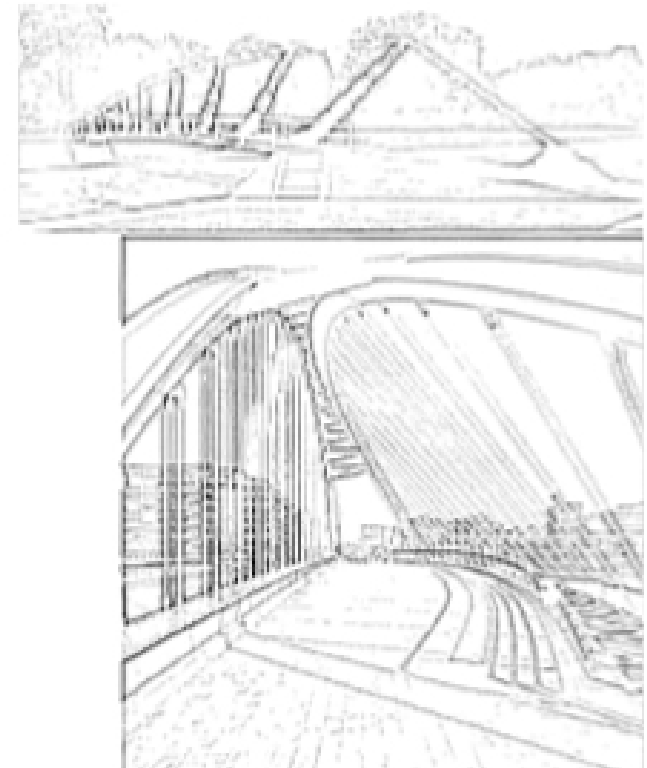
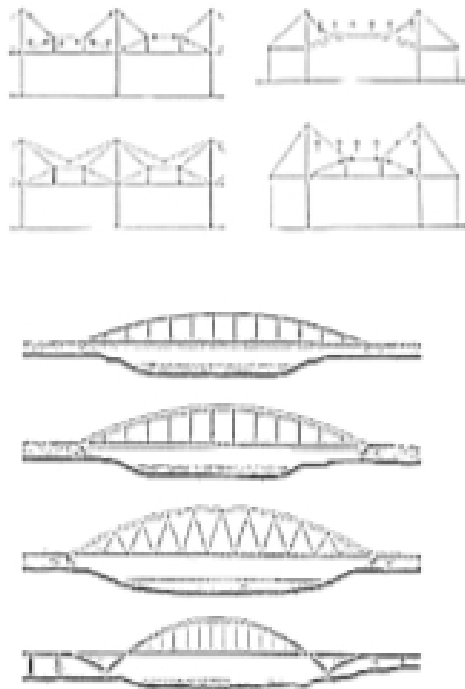
4. Literal Analogies

Literal analogies use an existing form or construct to generate the solution for the design. The following example shows how one form influences the design. In the landscape architecture design context, if one is designing a path to a reptile exhibit, the path could be modeled after a snake moving along the ground.



5. Learning Probes

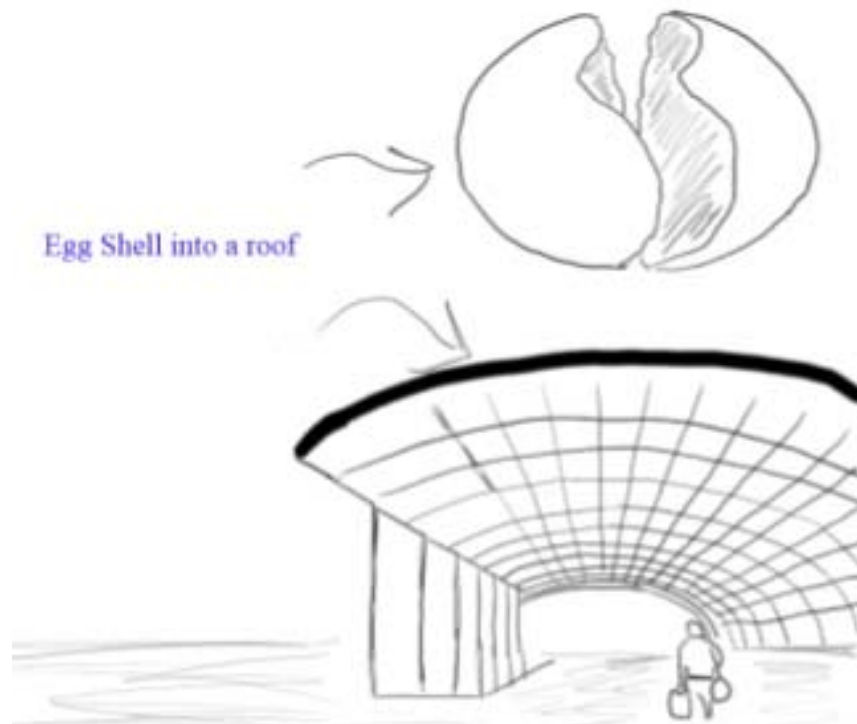
Learning probes start without a comprehensive understanding of all issues relating to the design. The design generates information used to explore the issues and understand the interplay of elements. The example starts with what known in its most basic form—what type of structure is needed to support the bridge. The information is used to “play” with the various elements of the structure and evaluate the results and effects within the design.



6. Subconscious Suggestion

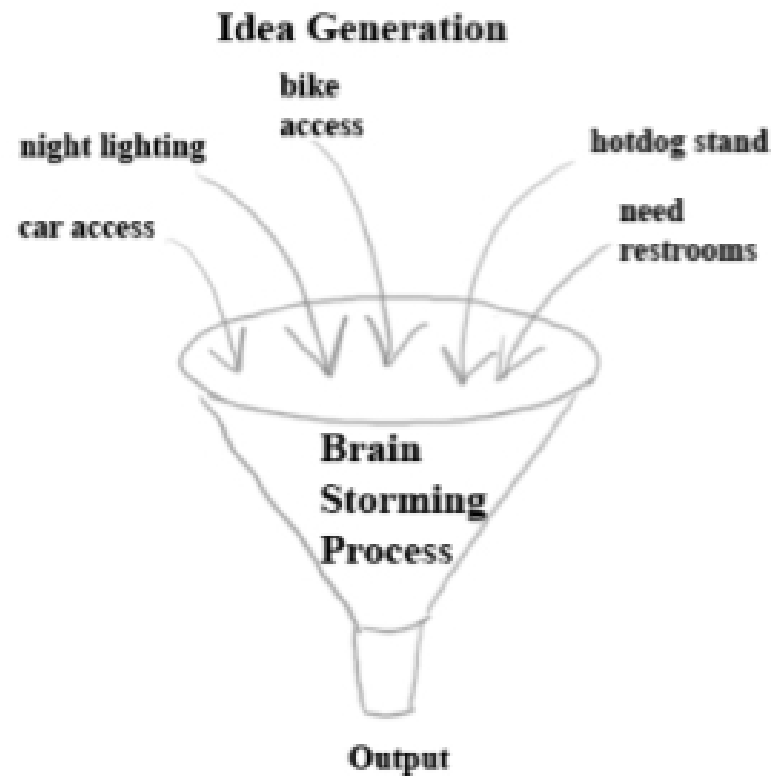
Subconscious suggestion brings forth the processing power of the subconscious to solve a design.

Many find this method hit or miss and unreliable. In the following example, the roof structure takes the form of an egg shell, strong yet thin.



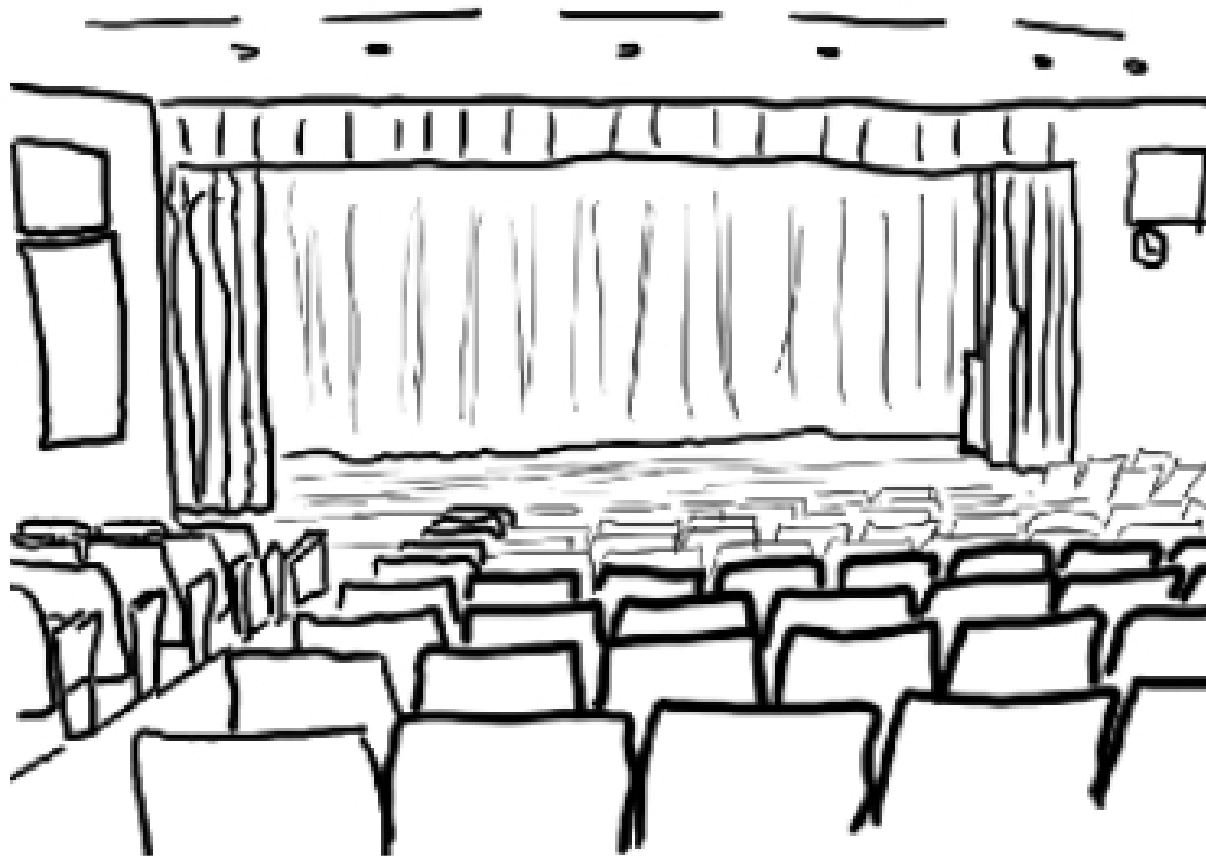
7. Brain storming

Brain storming relies on a group or collective effort to generate solutions for the design. The following diagrams the brain storming process.



8. Evaluation criteria

Evaluation criteria sets the criteria and subordinates all other design elements to this criteria. In this example, the criteria is for the last row to hear a pin drop on stage. Landscape architects commonly use a criteria for site run and design to that goal.



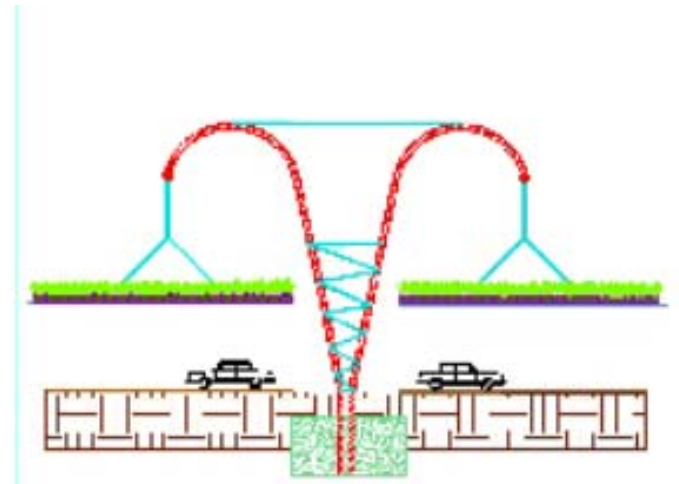
9. Well Spaced Alternatives

Well spaced alternatives bracket a design solution by the use of extreme alternatives. In one of the following photos, access is restricted by car, and in the alternative, access is unlimited by car. Neither alternative is the design solution, but they bracket the solution. The solution is found somewhere between these two alternatives.



10. Means-focus

Means-focus plays with forms or means to generate a solution, rather than focusing on the problem or object of the design. Here the designer uses free-moving sketches to develop a roof design.



11. Incremental improvement

Incremental improvement enhances a design gradually. Many times this is done by the use of case studies. A case study tries to understand the system being studied and apply it to a new situation, making small improvements. In the following sketch, the designer tries to understand the feel of a small town and convey this to a new development, at the same time improving parts that will not diminish the feeling of a small town.



12. Incremental adaption

Incremental adaption applies a successful design to a similar situation. The following sketch shows how a Parisian cafe is copied in Washington, D.C.



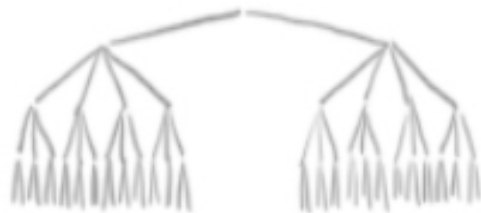
13. Typologies

Typologies are past solutions whose principles are considered constant and invariable within cultural contexts. As the following example illustrates, in the western culture, steeples are generally associated with houses of worship. This is what the design intends to communicate by the use of a type form.



14. Pattern languages

Pattern languages are the rules representing the order and correct function of the relationship between man and his environment. The following images show the underlining pattern and relationship of three different towns. These relationships or patterns can be applied to different designs by increasing or decreasing the scale. For example, designing an amusement park, one or a combination of these layouts might be useful.



Columbia MD



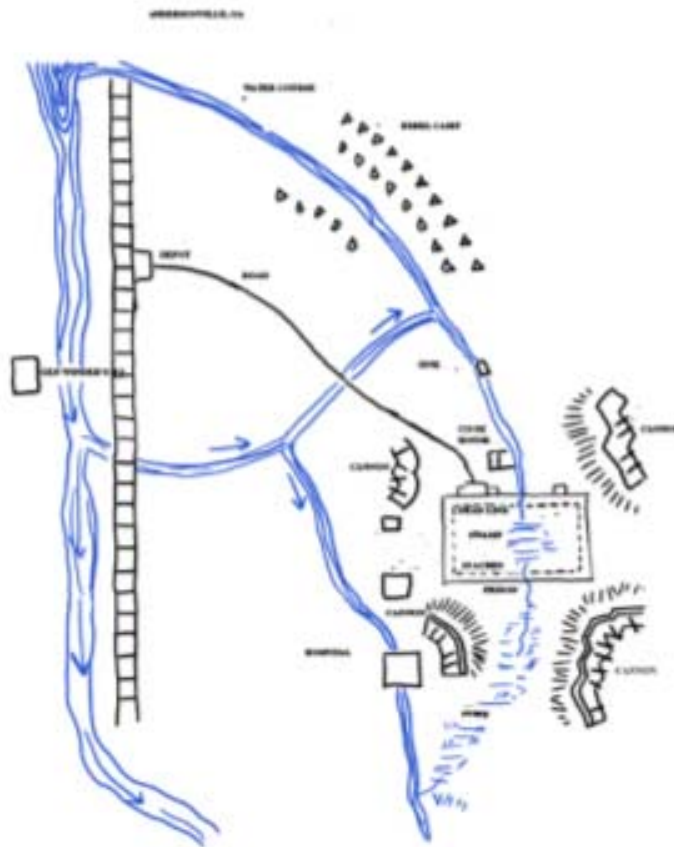
Communitas



Greater London 1943

15. Behavioral Setting

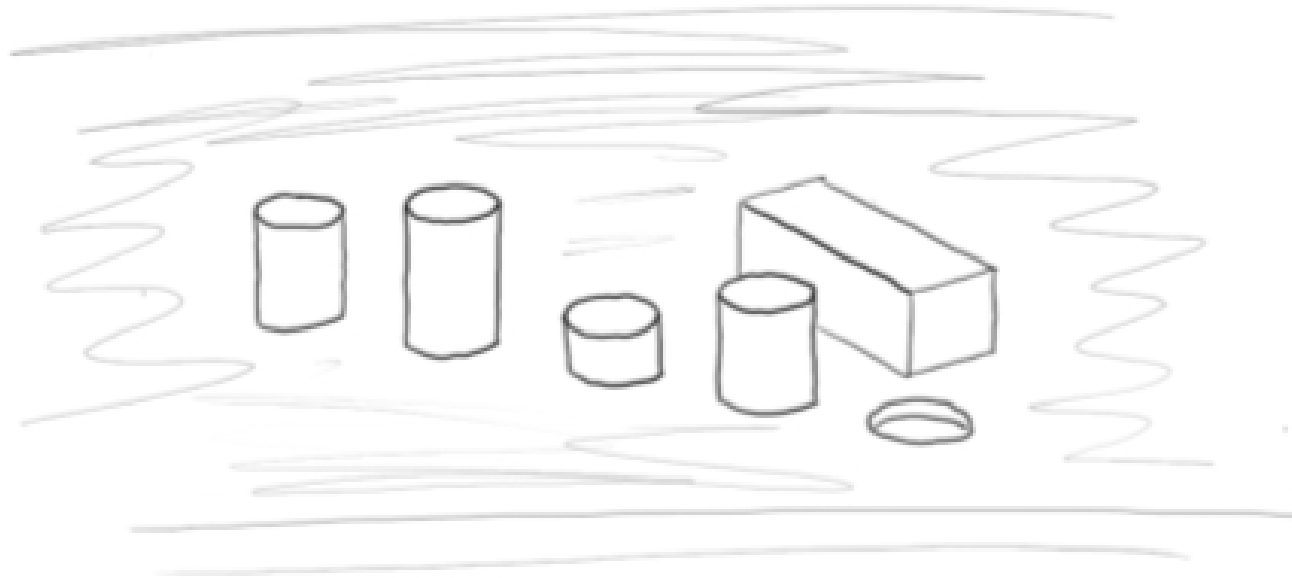
Behavioral setting design identifies behavior patterns that are independent and stable. For example, a prison has areas designed to address certain behaviors, such as containment, food preparation, hygiene, etc. In landscape architecture design, common behaviors would include parking, gathering areas, or filtration for run off.



Andersonville Prison

16. Structure-of-the-Problem

The structure-of-the-problem method focuses on the key problem. Once a solution is developed for this problem, the design falls into place. In the following example, the round pegs represent standard design problems. The square peg is the unique or key problem that must be addressed before the design is complete. In the landscape architecture context, standard design problems include issues such as what material to use in constructing a walkway and what type of plants to use in the design. Meanwhile, the key problem could be how to maximize and preserve a great view.



17. Optimization Essential Function

Optimization identifies the key functions of the design and works through each function, solving each as if it were the most important function. The information gathered is used to better understand how each function will fit into the design. In the following example, each function is separated into program elements. The program elements are then solved, and these solutions are used to develop the design to completion.



18. Disaggregation

Disaggregation divides a problem into subsets, solves for each subset and then combines the solutions of each subset to form a solution. In the following example, each piece of the game must be separately solved before the game is complete. In the landscape architecture context, each piece represents a design problem, such as topography and site run off. Each problem must be solved separately and then combined to complete the design.



the design may fail because it will lack one or more of the following:

External connections: If a design is not connected to the surrounding area, it runs the risk of become irrelevant. The external connections, such as connecting to infrastructure and community, must be addressed.

Internal connections: Elements within a design must have some connections. Otherwise the design is a amalgamation of parts with no synergy.

External structure: External structure incorporates existing conventions into the design. For example, American cars drive on the right side of the road. If this well understood convention is changed, it causes problems for those in the design and those entering the design.

Internal structure: Internal structure establishes an order and weight of the design elements within the design. If the most important element is a lake, then every other element in the design is subordinate to the lake.

Methodologies/methods are important for many reasons.

- 1) Methods give structure to the path way between the current situation and the desired state by establishing a priority and weighting the design elements and programs or a design strategy.
- 2) Methods determine how design elements connect. Different methods address different types and ways of constructing connections in a design. If a broad range of methods are incorporated into the process, more connections are generated. The results should create redundancies, interconnections and interdependencies within the design system, which moves the end result closer to the goal of adaptive or sustainable design.
- 3) In landscape architecture design, the process must incorporate all four categories of methods. When the design incorporates methods from all four categories, it will have internal and external structure and connect internally and externally.
- 4) Methods also shape the output of a design. Applying different methods to the same design project will result in different designs with different connections and structures.
- 5) Methods are the way to establish a connection between the personal elements of the design process—experiences, cognitive abilities and perceptions—and the “real” world. A designer always runs the risk of getting lost in his or her own constructed reality. Methods connect a designer’s cognitive abilities, experiences, and perceptions with the real world in which the design must exist.